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Nebraska Summary: S027 John Deere 2555

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SUMMARY OF OECD TEST 1097—NEBRASKA SUMMARY 027

JOHN DEERE 2555 DIESEL

8 SPEED

(COLLAR SHIFT)

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Fuel Consumption			Mean Atmospheric Conditions
		Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	

MAXIMUM POWER AND FUEL CONSUMPTION

Rated Engine Speed—(PTO speed—567 rpm)					
66.0 (49.2)	2500	4.03 (15.25)	0.426 (0.259)	16.40 (3.23)	

Standard Power Take-off Speed (540 rpm)					
64.8 (48.3)	2382	3.92 (14.85)	0.422 (0.257)	16.50 (3.25)	

VARYING POWER AND FUEL CONSUMPTION

66.0 (49.2)	2500	4.03 (15.25)	0.426 (0.259)	16.40 (3.23)	Air temperature 73°F (23°C)
57.0 (42.5)	2536	3.48 (13.19)	0.427 (0.260)	16.34 (3.22)	
43.2 (32.2)	2562	2.86 (10.83)	0.462 (0.281)	15.08 (2.97)	Relative humidity 60%
29.1 (21.7)	2583	2.30 (8.70)	0.552 (0.336)	12.64 (2.49)	
14.6 (10.9)	2602	1.76 (6.65)	0.837 (0.509)	8.32 (1.64)	Barometer 29.29" Hg (98.9 kPa)
.....	2620	1.19 (4.52)	

Maximum Torque 164 lb. ft (222 Nm) @ 1405 RPM
Maximum Torque Rise 18%

DRAWBAR PERFORMANCE FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power 5th (1 II) Gear									
56.5 (42.1)	3735 (16.62)	5.66 (9.11)	2497	7.8	0.498 (0.303)	13.86 (2.73)	180 (82)	68 (20)	29.53 (99.7)
75% of Pull at Maximum Power 5th (1 II) Gear									
44.3 (33.0)	2795 (12.44)	5.93 (9.54)	2561	5.9	0.521 (0.317)	13.25 (2.61)	176 (80)	68 (20)	29.53 (99.7)
50% of Pull at Maximum Power 5th (1 II) Gear									
30.6 (22.8)	1875 (8.34)	6.11 (9.84)	2588	3.9	0.582 (0.354)	11.88 (2.34)	176 (80)	68 (20)	29.53 (99.7)
75% of Pull at Reduced Engine Speed 6th (2 II) Gear									
44.4 (33.1)	2790 (12.41)	5.96 (9.59)	1798	5.9	0.465 (0.283)	14.87 (2.93)	174 (79)	68 (20)	29.53 (99.7)
50% of Pull at Reduced Engine Speed 6th (2 II) Gear									
30.6 (22.8)	1865 (8.30)	6.15 (9.89)	1815	3.9	0.493 (0.300)	13.96 (2.75)	174 (79)	68 (20)	29.53 (99.7)

MAXIMUM POWER IN SELECTED GEARS

2nd Gear (2 I)									
40.1 (29.9)	6910 (30.74)	2.17 (3.50)	2559	14.9	0.572 (0.348)	12.08 (2.38)	176 (80)	61 (16)	29.53 (99.7)
3rd Gear (3 I)									
53.2 (39.7)	6245 (27.79)	3.19 (5.14)	2499	13.4	0.529 (0.322)	13.05 (2.57)	178 (81)	68 (20)	29.53 (99.7)
4th Gear (4 I)									
55.5 (41.4)	4445 (19.77)	4.69 (7.54)	2501	9.4	0.505 (0.307)	13.65 (2.69)	176 (80)	68 (20)	29.53 (99.7)
5th Gear (1 II)									
56.5 (42.1)	3735 (16.62)	5.66 (9.11)	2497	7.8	0.498 (0.303)	13.86 (2.73)	180 (82)	68 (20)	29.53 (99.7)
6th Gear (2 II)									
56.3 (42.0)	2530 (11.25)	8.35 (13.43)	2499	5.2	0.498 (0.303)	13.86 (2.73)	178 (81)	68 (20)	29.53 (99.7)

Location of Test: DLG Testing Station for Agricultural Machinery, Max-Eyth-Weg 1 D-6114 Grosz-Umstadt, West Germany

Dates of Test: August, 1987

Manufacturer: John Deere Werke Mannheim D-6800 Mannheim, West Germany

FUEL AND OIL: Fuel No. 2 Diesel Cetane No. NA Specific gravity converted to 60°/60°F (15°/15°C) 0.838 Fuel weight 6.98 lbs/gal (0.836 kg/l) Oil SAE 15W40 Oil Consumption for 10 hours NA Transmission lubricant John Deere Renogear Hydro J 20A

ENGINE: Make John Deere Diesel Type four cylinder vertical Serial No. CD 4.239 D 718 940 Crankshaft lengthwise Rated engine speed 2500 Bore and stroke 4.19" × 4.33" (106.5 mm × 110 mm) Compression ratio 17.8 to 1 Displacement 239 cu in (3920 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil Fuel filter one paper element Muffler underhood Exhaust vertical Cooling medium temperature control thermostat.

CHASSIS: Type standard Serial No. 610 777 Tread width rear 59.8" (1520 mm) to 96.1" (2440 mm) front 59.1" (1500 mm) to 74.8" (1900 mm) Wheel base 89.7" (2279 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio Nominal travel speeds mph (km/h) first 1.73 (2.78) second 2.47 (3.97) third 3.66 (5.89) fourth 5.11 (8.23) fifth 6.08 (9.79) sixth 8.69 (13.98) seventh 12.89 (20.75) eighth 18.02 (29.00) reverse 2.01 (3.23), 2.86 (4.61), 4.25 (6.84), 5.94 (9.56) Clutch single dry disc operated by foot pedal Brakes single wet disc hydraulically operated by two foot pedals which can be locked together Steering power assist Power take-off 540 rpm at 2382 engine rpm Unladen tractor mass 7110 lb (3225 kg).

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

TRACTOR SOUND LEVEL WITHOUT CAB		dB(A)
Maximum sound level—in 4th (4 I) gear		97.0
Bystander		NA
TIRES, BALLAST AND WEIGHT		
—No., size, ply & psi (kPa)		Tested Without Ballast
Rear Tires	Two 18.4-30; 8; 16 (110)	
Front Tires	Two 11L-15; 6; 26 (180)	
Height of Drawbar	21.7 in (550 mm)	
Static Weight	—Rear	5040 lb (2285 kg)
	—Front	2260 lb (1025 kg)
	—Total	7300 lb (3310 kg)

THREE POINT HITCH PERFORMANCE (STATIC TEST)

CATEGORY: II

Quick Attach: None

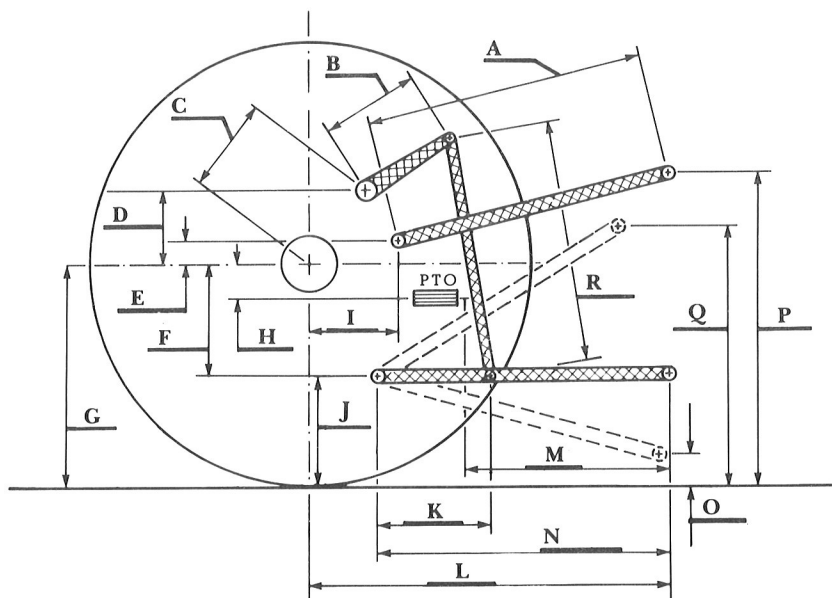
Maximum Force Exerted Through Whole Range: 3325 lbs (14.80 kN)

i) Opening pressure of relief valve: NA
Sustained pressure with pump stalled: 2350 psi (162 Bar)

ii) Pump delivery rate at minimum pressure: 14.7 GPM (55.5 l/min)

iii) Pump delivery rate at maximum hydraulic power: 13.6 GPM (51.3 l/min)
Delivery pressure: 1985 psi (137 Bar)
Power: 15.7 Hp (11.7 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD



REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary are taken from a test conducted under the OECD restricted standard test code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **1097**, Nebraska Summary 027, June 21, 1988.

LOUIS I. LEVITICUS

Engineer-in-Charge

K. VON BARGEN

R. D. GRISSO

J. R. GILLEY

Board of Tractor Test Engineers

	inch	mm
A	26.1	664
B	10.0	254
C	10.9	277
D	10.9	277
E	6.4	163
F	7.9	200
G	28.4	720
H	2.8	71
I	12.6	321
J	20.5	520
K	18.3	465
L	38.3	973
M	21.7	551
N	33.8	858
O	7.9	200
P	40.6	1030
Q	31.9	810
R	26.9	684